HOMEWORK #30 (M427K FALL 2004)

Solve the following differential equations using the Laplace transform

1. ASSUME $y(0) = y'(0) = 0$

$$y'' + 8y' + 90y = \sin(3t) + e^{\pi t}$$

2. ASSUME $y(0) = y'(0) = 0$

$$y'' + 4y = \sin(2t) + \cos(3t)$$

3. ASSUME $y(0) = y'(0) = ... = y'''(0) = 0$

$$(D-1)(D+2)(D-3)(D+4)y = 5 + e^{3t}$$